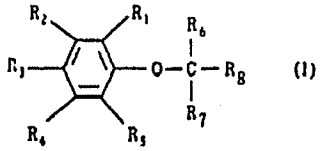
87-130843/19 C02 CIBA 01.10.85
CIBA GEIGY AG *EP -221-844-A
01.10.85-CH-004245 (13.05.87) A01n-43/40 C07d-213/30

New 1-phenoxy-2-pyridyl-alkanone and-alkanol derivs. - useful as fungicides, bactericides and plant growth regulators

C87-054365 E(AT BE CH DE ES FR GB GR IT LI LU NL SE)

C(7-D4, 12-A1, 12-A2C, 12-P1, 12-P9) 3

Phenoxyalkyl-pyridine derivs. of formula (I) are new:

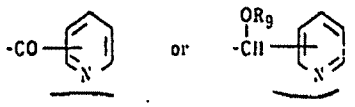


(I)

R_1 - R_5 = H, halo, 1-6C alkyl or 1-6C alkoxy (both opt. substd. by halo), CN, 1-6C alkoxycarbonyl or phenyl;

R_6 and R_7 = H, 1-6C alkyl, 3-6C alkenyl, 3-6C alkynyl, or phenyl or benzyl (both opt. ring-substd. by halo, 1-6C alkyl or 1-6C alkoxy, both opt. substd. by halo);

R_8 =



R_9 = H, 1-6C alkyl, 3-6C alkenyl, 3-6C alkynyl, or benzyl (opt. ring-substd. by halo, 1-6C alkyl or 1-6C alkoxy, both opt. substd. by halo);

provided that the CO gp. in R_8 must be in the 3- or 4-position when R_1, R_2, R_4, R_5 and R_7 are all H, R_3 = MeO and R_6 = Me; and R_8 can also be $R_{10}CO$;

R_{10} = 1-6C alkyl (opt. substd. by halo), 3-6C alkenyl or alkynyl, 2-5C alkoxy-alkyl, 3-6C cycloalkyl (opt. substd. by 1-3C alkyl) or phenyl, benzyl or phenethyl (opt. ring-substd. by halo, 1-6C alkyl or alkoxy, both opt. substd. by halo).

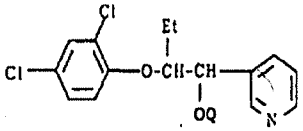
USE/ADVANTAGE

(I) are microbicides, effective against phytopathogenic bacteria and fungi; they have curative, systemic and esp. preventative properties and can be applied to plants, seeds or soils. Some (I) also have plant-growth regulating activity and at higher doses inhibit excessive vegetative growth of crops.

Pref. application rates are 150-600 g/ha.

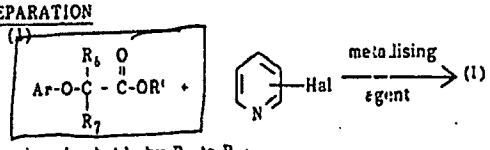
SPECIFICALLY CLAIMED

9 Cpds. e.g.



Q = H, Me, MeCO or MeO.CH_2CO.

PREPARATION

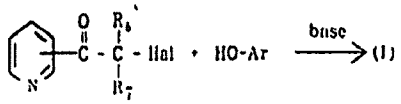


Ar = phenyl substd. by R_1 to R_5;

R^1 = 1-4C alkyl, 3-4C alkenyl, or phenyl or benzyl, opt. substd. by alkyl, alkoxy, halo, NO_2 or CN.

Reaction is pref. at -130 to 20°C, with Mg (in the form of a Grignard reagent) or BuLi as metallising agent.

(2)



Reaction is pref. at 0-120°C.

Both methods produce ketones which can be reduced conventionally to alcohols and these opt. alkylated or acylated.

EXAMPLE

140.2 g 93% 2,4-dichlorophenyl and 232 g K_2CO_3 were mixed in 1 l acetone, then heated briefly to boiling, cooled to 0°C and gradually treated over 1 hr. with 224.8% 3-(bromo-acetyl)pyridine hydrobromide.

The mixt. was stirred for 15 hr. at 0-5°C and for 6 hr. at 20°C, then filtered and the mixt. evaporated. Recrystn. of the residue from MeOH gave 2-(2,4-dichlorophenoxy)-1-(3-pyridinyl)-1-ethanone, m.pt. 118-9°C.

(31pp1251DAHDwgNo0/0).

(G) ISR: DE2742173 EP-117485 DE2909754.